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AUTHOR Matthews, Kenneth M.
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ABSTRACT

This speech presents issues and questions to be considered in deciding the relevance of program budgeting. Areas of consideration include identifying objectives, determining program costs, measuring learning outcomes, determining the contributions of the school and the program to learning outcomes, the effects of the beliefs of personnel on the success of PPBS, and the political implications of PPBS. Major points are as follows: 1) identifying objectives that accurately reflect the goals of the organization is a time-consuming process, 2) the effective determination of the costs of programs depends on the cooperation and commitment of personnel at the school level, 3) current analysis practices are inadequate to determine the contributions of the various components of the learning environment to learning outcomes, 4) high risk and high-cost programs are desirable if PPBS is to help identify ways of doing things better or faster, and 5) better decisions are not likely to result from PPBS unless the policy-makers maintain a stable policy position. (Author/DW)

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# RELEVANCE OF PPBS?

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Kenneth M. Matthews
Assistant Professor
Department of Educational Administration
College of Education
University of Georgia

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RELEVANCE OF PPBS?

Kenneth M. Matthews

## Introduction

According to the program, the topic of this presentation is "Relevance of PPBS." Since the term, "relevance," requires a subjective evaluation, a question mark should be added to the end of the title of this section of the program.

The relevancy of PPBS is a personal consideration; one that should be considered differently by the personnel in each organization represented at this conference. Every organization has different goals, capabilities, and problems. The question of relevancy should be considered in terms of these unique characteristics of each organization.

Program Budgeting systems are reported to be helpful in doing things better, faster, or less expensively. In November of 1974, an ERIC search was made of the literature on Program Budgeting. As usual, a question was written to help determine an appropriate search strategy. In this case, the question was, "What has been done better or faster as a result of Program Budgeting in public education?" The search produced

no evidence that PPBS had enabled any objectives to be accomplished better or faster in any public school system. Of course, the search design could have been faulty. But, if Program Budgeting is as good as some of its proponents would have us believe, then the literature should be overflowing with evidence of objectives being accomplished better and faster as a result of PPBS in public education.

In the absence of overwhelming evidence of the success of PPBS, its relevance should be considered carefully. There are questions which should be answered and issues which should be considered before a decision is made on the relevancy of PPBS to any organization. The remainder of this presentation will be devoted to a discussion of some of these questions and issues. Many problem areas have been raised by graduate students of educational administration and professional colleagues. Others have been gleaned from the literature on PPBS.

## Determining Objectives

Can your organization produce written, measurable objectives that accurately reflect the goals of the organization? The basic considerations in identifying objectives are: (1) Who will write the objectives?,

(2) How many objectives will be identified?, and (3) Who will determine if the objectives accurately reflect the goals of the organization?

Objectives may be written by teachers, by central office personnel, or by representative committees. Each of these methods has disadvantages. Objectives prepared by teachers are likely to be those which are easiest to write, measure, or achieve, rather than the most important objectives. In addition, they may not accurately reflect the goals of the organization. Objectives identified by central office personnel have another type of disadvantage. They may not reflect what the teachers are actually teaching.

Objectives prepared by representative committees tend to nullify the most obvious disadvantages of using central office personnel or teachers exclusively to identify objectives. However, using committees to prepare objectives requires skilled leadership and is a time-consuming process.

How many objectives will be identified? If limited to a small number, many objectives may be eliminated which are clearly relevant to the goals of education. For example, objectives for the attitudinal outcomes of education should not be overlooked. What

has been accomplished if students attain high scores on achievement tests, but hate everything related to school?

Having too many objectives will create problems which are as serious as not having enough objectives. Unless care is exercised to limit the number of objectives, an inordinate amount of time may be spent in measurement. Teachers may complain that too much time is spent on testing and not enough time is left for teaching, with some justification.

Who will determine if the objectives accurately reflect the goals of the organization? Ultimately, the policy makers should make this determination. However, many objectives are highly technical in nature and use terminology which is not commonly understood by those not trained in the field. If objectives are stated in this manner, they may require translation before the policy makers can determine if they accurately reflect the goals of the organization.

Regardless of how objectives are prepared, the identification of objectives that accurately reflect the goals of the organization requires a considerable amount of time. Are written, measurable objectives that accurately reflect the goals of the organization the first step in implementing PPBS? If written

objectives are a necessary first step, then PPBS may never be implemented in some organizations because of the time requirements and the emotionalism involved in the process of identifying objectives.

## Determining Costs

Can your organization effectively determine the direct and indirect costs of programs? Handbook II, revised, presents a common-sense approach to the determination of the indirect costs of programs. But, any method of prorating indirect costs is subject to debate. For example, transportation costs can be prorated on the basis of the number of students enrolled. When this is the case, the principal of a school with a small percentage of transported students might legitimately complain. Why should a school with a small percentage of transported students be "charged" at the same rate as a school with a large percentage of transported students?

On the other hand, transportation costs can be prorated on the basis of the number of students actually transported. In this case, teachers with a large percentage of transported students in their programs could complain. Why should their program be "charged"

more simply because their students happen to be transported? In most cases, these students would be transported to that school regardless of what courses they were taking.

The method of prorating indirect costs among different cost centers and programs is affected by the degree of preciseness desired. More precise cost determinations will yield more meaningful data. But, regardless of the method of prorating indirect costs selected, the method is subject to debate. However, a decision must be made if PPBS is to be implemented.

The direct costs of programs must be identified, to a large extent, on a decentralized basis. Central office personnel simply are not in a position to know many of the direct costs of programs. For example, most central office personnel have no direct way of knowing if third grade reading texts are used in the third grade reading program or in the sixth grade remedial reading program. This information must come from the schools.

The effective determination of the costs of programs depends on the cooperation and commitment of personnel at the school level. Without the cooperation of personnel in the schools, many of the direct costs of programs may be inaccurately "charged." In addition, if personnel in the schools are not committed to PPBS,

then some mechanism must be established to resolve disputes about the costs of programs, as these disputes will undoubtedly occur.

Most cost analyses involve the use of cost per student as the basic unit of cost. This has led many teachers and principals to two, rather obvious, conclusions; (1) More students will reduce the cost per student, and (2) Less expensive teachers will reduce the cost per student.

If PPBS results in efforts to reduce the cost per student, then two issues need to be considered. First, will there be a trend toward competition for students among teachers? Second, will there be a tendency to employ less expensive teachers? A simplistic, first response to each of these issues might be: "So what is wrong with that?" But, serious consideration should be given to the long range effects of employing less expensive teachers and how competition among teachers will affect the productivity of the organization.

## Measuring Outcomes

Can your organization effectively measure learning outcomes? The two most commonly used measurement tools for academic achievement are: standardized norm

referenced tests and locally developed criterion referenced tests. Each of these measurement tools has limitations. Standardized norm referenced achievement tests are often invalid for two reasons. First, they measure things that are not taught by teachers. Second, they do not measure what is taught.

Locally developed criterion referenced tests also have limitations. Often, these tests are simply unreliable. Good criterion referenced tests take time to develop, and most public school teachers do not have the necessary time to develop good, reliable tests.

Attitudinal outcomes of the learning process are important. Frequently, attitudes are ignored when learning outcomes are evaluated. Even though standardized norm referenced tests and locally developed criterion referenced tests have limitations, the problems of measuring attitudes are even more serious. The accurate measurement of attitudes is difficult, at best.

In addition to the problem of "how" to measure learning outcomes there is also the problem of "when" to measure them. The standard procedures of pre-testing and post-testing leave much to be desired. Many of the benefits of programs are not discernible until long after students have completed the program or, in some cases, until after the program has been terminated.

Can your organization determine the contributions of the school to learning outcomes? To be able to reap the full benefits of PPBS, a determination must be made as to the relative effectiveness of different schools. To differentiate between effective and ineffective schools, many factors need to be considered. All of the factors affecting learning outcomes have not been determined and of those which have been identified, many are difficult to measure.

One model for predicting academic achievement can be developed from the various models presented in the literature. This model is obviously inadequate, but serves to illustrate the problems involved in determining the contribution of the school to academic achievement. Simply stated, the model is: The academic achievement of a student is a function of the effort he exerts to achieve, his ability to achieve, and the learning environment (the school).

In an abbreviated form the model is:

Achievement = f(Effort,
Ability, and
Learning Environment)

If Vroom's (Victor H. Vroom, Work and Motivation. New York: John Wiley & Sons, Inc., 1964) analysis of

the factors influencing force is correct, then the effort a student exerts to achieve can be considered the product of two factors; his desire to achieve, and his perception of his ability to achieve. There is some support for the position that an individual's perception of his ability to achieve is a function of his general self concept. So by substitution, the model becomes:

Achievement = f(Desire,
Self-Concept,
Ability, and
Learning Environment)

At this point, the model for predicting student achievement is logical. Students who have little desire to achieve - achieve little. In general, students who have poor self-concepts are not high achievers. Students who are mentally deficient do not achieve as well as those who are mentally superior, under normal circumstances. Then too, the learning environment of the school has something to do with what a student achieves. Notice should be taken that of these four factors, only one, the learning environment, is under the direct control of the school.

If the difference in effectiveness between schools is to be determined; then the desire, self-concept, and ability factors must be measured. Although the model

for predicting achievement is logical, measurement problems reduce its accuracy. Generally, socioeconomic status; as measured by family income, parents' education, and father's occupation, is used as an indicator of a student's desire to achieve. Some measure of the general self-concept of the student is commonly used as an indicator of his perception of his ability to achieve. Finally, an intelligence test score, I. Q., is frequently considered indicative of the ability of a student to achieve.

Socioeconomic status, general self-concept, and I. Q. test scores are all inadequate measures of the factors under consideration. For instance, if learning the multiplication tables is the objective; then desire to learn the multiplication tables, self-concept of ability to learn the multiplication tables, and actual ability to learn the multiplication tables are the factors which need to be measured. However, socio-economic status, general self-concept, and I. Q. can be considered minimal, acceptable data if a distinction is to be made between effective and ineffective schools.

Can your organization gather socioeconomic, self-concept, and intelligence data? If not, there is little possibility that an accurate distinction can be made between the relative effectiveness of different schools.

To complicate the problem even further, these measures can change over time, so they must be updated periodically.

If your organization can determine the differences in the effectiveness of schools, then the next step is to differentiate between effective and ineffective programs. Determining the contribution of the various components of the school is more complex than simply differentiating between effective and ineffective schools. What did the teacher contribute? What part did the instructional materials play? What were the effects of other programs? For example, what effect did a good reading program have on achievement test scores in the social sciences? Current analysis practices are not adequate to answer these questions.

## Beliefs of Personnel

Do the personnel in your organization believe the policy makers have a realistic view of the possibilities and limitations of PPBS? Many educators believe the end result of PPBS will be the funding of only low cost programs. If the people in your organization believe only low cost programs will be funded when PPBS is implemented, then the effects of this belief need to be considered. One effect may be the suppression of of requests for high cost programs. If requests for

only low cost programs are initiated, then more effective schools are only a remote possibility.

Do the personnel in your organization believe that PPBS will be used as a people evaluation system? Graduate students have indicated this belief prevails throughout many school systems. If this is true, requests for high risk programs will be a rarity.

High risk programs and more expensive programs are desirable, and may be necessary, if PPBS is going to help identify ways of doing things better or faster. If the personnel in your organization believe PPBS will be used to evaluate people or will result in only low cost programs being funded, then in-service training will be necessary before the benefits of PPBS can become a reality.

## Policy Makers and Politics

Do the policy makers of your organization have the personal stability to withstand the use of data generated by PPBS by pressure groups? Program Budgeting systems will generate data which have not been available before. For the first time, the costs of education will be related to objectives. These data will be used by pressure groups to further their own special interests.

How will the policy makers in your organization react to this pressure? Will they yield to the pressures of the moment or will they have enough personal security to retain their policy positions? How will they react when confronted with evidence that some programs cost 10 or 15 times as much per student as other programs?

If the policy makers of your organization shift their goals and priorities as each special interest group presents new problem areas, then it is highly improbable PPBS will result in better decisions. Perhaps, a more likely outcome will be that PPBS will result in a cognitive overload. The policy makers may have more information than they can deal with effectively as a result of an unstable policy position.

## Summary

Some of the problems and issues concerning the relevance of PPBS have been presented. As an overview, there are seven major questions which should be considered separately and collectively in determining the relevance of PPBS to your organization. These questions are:

1. Can your organization produce written, measurable objectives that accurately reflect the goals of the organization.

2. Can your organization effectively determine the direct and indirect costs of programs?
3. Can your organization effectively measure learning outcomes?
4. Can your organization determine the contributions of the school to learning outcomes?
5. Can your organization determine the contributions of the various components of the learning environment to learning outcomes?
6. Do the personnel in your organization believe the policy makers have a realistic view of the possibilities and limitations of PPBS?
7. Do the policy makers of your organization have the personal stability to withstand the use of data generated by PPBS by pressure groups?

One could easily get the impression that PPBS will only bring problems. Implementation of a comprehensive Program Budgeting system will create new problems. However, PPBS may be relevant to those organizations which can afford to allocate the resources to adequately plan and implement the system and can keep it operating until the problems and issues can be resolved.

Instead of considering the relevance of PPBS first, a more appropriate initial step would be the

identification of a problem which needs to be solved in your organization. Depending on the nature of the problem, certain aspects of PPBS (such as program cost accounting), rather than a comprehensive system, may be more relevant to your organization.